

**INTERNATIONAL SEARCH REPORT**

International application No.

PCT/US03/29949

**A. CLASSIFICATION OF SUBJECT MATTER**

IPC(7) : H03K 9/00; H04L 27/06  
 US CL : 375/316

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 375/316

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 6,359,938 B1 (Keevill et al ) 19 March 2002 (19.03.2002), Figs. 12-20, column 4, lines 55-67; col. 20, lines 10-67; col. 21, lines 1-67; col. 60, lines 1-67	1-8, 17-20
Y	US 6,347,123 B1, (Mathe et al ) 12 February 2002 (12.02.2002), Figs. 1, 7, 8, column 1, lines 20-58; col. 4, lines 12-63; col. 5, lines 2-60; col. 10, lines 28-65; col. 11, lines 1-57	1-8, 17-20

Further documents are listed in the continuation of Box C.

See patent family annex.

* Special categories of cited documents:	"T"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E" earlier application or patent published on or after the international filing date	"Y"	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&"	document member of the same patent family
"O" document referring to an oral disclosure, use, exhibition or other means		
"P" document published prior to the international filing date but later than the priority date claimed		

Date of the actual completion of the international search

04 January 2004 (04.01.2004)

Date of mailing of the international search report

02 FEB 2004

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**BOX II. OBSERVATIONS WHERE UNITY OF INVENTION IS LACKING**

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1. In order for all inventions to be examined, the appropriate additional examination fees must be paid.

Group I, claim(s) 1-8 and 17-20, drawn to RF circuit that receives classified in Class 375 subclass 316.

Group II, claim(s) 9-16, drawn to Transceiver, classified in 375 subclass 219.

The inventions listed in Groups I and II do not relate to a single general inventive concept under the PCT Rule 13.1 because under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: The receive circuit for claims in Group I pertains to a receiver whereas the claims in Group II pertains to a transceiver with transmit and receive techniques.